

SABIC
Innovative
Plastics



SABIC Polymershapes

1250 OLD INNES RD. 519 OTTAWA,ONT. K1B 5L3
TEL: 613 745 7043 FAX: 613 745 8163

CERTIFICATE OF COMPLIANCE

SOLD TO: DART AEROSPACE

DATE: 10/13/2010

YOUR PURCHASE ORDER : CHANTAL

OUR SHIPPER NO: 092882

LINE ITEM #: 1

QUANTITY: 1 PCS

DESCRIPTION: .LEXAN 9034-112 .060 X 48 X 48

THESE PARTS WERE MANUFACTURED IN ACCORDANCE WITH: UL 94 HB

THIS IS TO CERTIFY THAT THE MATERIAL FINISHES AND FUNCTIONAL REQUIREMENTS
OF THE ABOVE LISTED PARTS ARE IN ACCORDANCE WITH THE REFERENCE
PROCUREMENT SPECIFICATIONS, CONTROL DRAWINGS OR PARTS DESIGNATION AND
LATEST REVISIONS AS REFERENCED ON THE SUBJECT PURCHASE ORDER.

AUTHORIZED REPRESENTATIVE SIGNATURE

JON CALDWELL
BRANCH MANAGER

TYPICAL PROPERTY VALUES (continued)*

Property	Test Method	Units	Value
ELECTRICAL			
Dielectric Constant @ 10 Hz	ASTM D150	—	2.96
@ 60 Hz			3.17
Volume Resistivity	ASTM D257	ohm-cm	8.2×10^{16}
Power Factor @ 60 Hz	ASTM D150		0.0009
@ 1,000,000 Hz			0.010
Arc Resistance	ASTM D495	sec	10-11
Stainless Steel Strip Electrodes			120
Tungsten Electrodes			
FLAMMABILITY			
Horizontal Burn (Flame Spread) AEB	ASTM D635	in	<1

**For more information
call: (800) 451-3147.**

Although all information, recommendations, or advice contained herein is given in good faith, no guarantee is made that the same results as those described will be obtained or, as to the effectiveness or safety of any design, and General Electric Company*, USA, its subsidiaries, affiliates and authorized representatives shall in no event be held responsible for any loss incurred through such use of the products. Each user shall make its own determination of the suitability of the products or any such information, recommendations or advice for its own particular use. The products of General Electric Company, its subsidiaries or affiliates are sold in any event subject to the Conditions of Sale constituting part of the applicable representative or other sales agreement or printed on the back of order acknowledgments or invoices or are available upon request. Nothing in this or any other document or any oral recommendation or advice shall be deemed to alter, vary, supersede, or waive any of the Conditions of Sale. Statements concerning possible or suggested uses of the materials or designs described herein are not to be construed as constituting a license under any General Electric Company or subsidiary or affiliate company patent covering such use or as recommendations for use of such materials or designs in the infringement of any patent.

*These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local GE Plastics Structured Products representative or the GE Plastics Structured Products Quality Services Department.



GE Structured Products

General Electric Company
One Plastics Avenue
Pittsfield, MA 01201
www.structuredproducts.ge.com

® Registered Trademark of General Electric Company
* Not connected with the English company of similar name.

SPD-2101B (6/98) LMC

LEXAN® 9034 SHEET

DESCRIPTION

LEXAN® 9034 uncoated polycarbonate sheet is the standard grade of LEXAN sheet for transparent protective glazing. High-impact LEXAN 9034 sheet can be utilized for primary glazing, or on either side of existing glazing for economical protection against breakage or intrusion. A better insulator than glass, LEXAN 9034 sheet contributes to lower energy costs.

TYPICAL PROPERTY VALUES*

Property	Test Method	Units	Value
PHYSICAL			
Specific Gravity	ASTM D792	—	1.20
Refractive Index @ 77°F	ASTM D542A	—	1.586
Light Transmission (Average), 1/8" disk	ASTM D1003	%	88
Rockwell Hardness	ASTM D785	—	M70
Abrasion Resistance, Taber Abrader, CS-17 wheel	ASTM D1044	mg/1,000 cycles	10
Water Absorption, Equilibrium, 24 hrs @ 73°F	ASTM D570	%	0.15
@ 212°F			0.35
			0.58
MECHANICAL			
Tensile Strength @ Yield	ASTM D638	psi	9,000
Ultimate			9,500
Tensile Modulus	ASTM D638	psi	345,000
Flexural Strength	ASTM D790	psi	13,500
Flexural Modulus	ASTM D790	psi	345,000
Flexural Endurance @ 1,800 cycles/min, 73°F, 50% RH	ASTM D671	psi	1,000
Compressive Strength	ASTM D695	psi	12,500
Compressive Modulus	ASTM D695	psi	345,000
Elongation	ASTM D638	%	110
Poisson's Ratio	—	—	0.37
Izod Impact Strength Notched @ 1/8"	ASTM D256A	ft-lbs/in	12-16
Unnotched @ 1/8"			60 (no failure)
Tensile Impact Strength, S-Type Specimen	ASTM 1822	ft-lbs/in ²	225-300
Shear Strength @ Yield	ASTM D732	psi	6,000
Ultimate			10,000
Shear Modulus	ASTM D732	psi	114,000
Deformation Under Load @ 4,000 psi @ 73°F	ASTM D621	%	0.2
@ 158°F			0.3
THERMAL			
Coefficient of Thermal Expansion	ASTM D696	in/in/°F	3.75 x 10 ⁻⁵
Coefficient of Thermal Conductivity	ASTM C177	Btu·in/hr·ft ² ·°F	1.35
Specific Heat @ 40°C	ASTM D648	cal/gm/°C	0.30
Heat Deflection Temperature @ 264 psi		°F	270
@ 66 psi	ASTM D746		280
Brittle Temperature			-211

(Continued on Reverse)

*Registered Trademark of GE

*These are typical properties and are not intended for specification purposes. If minimum certifiable properties are required, please contact your local GE Plastics Structured Products representative or the GE Plastics Structured Products Quality Services Department.



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID: PO12498

Purchase Order Date 9/02/10

PO Print Date 9/02/10

Page Number 1 of 1

Order From :
SABIC POLYMERSHAPES
9150 AIRPORT ROAD
BRAMPTON, ON L6S 6G1
CA

VC-GEP001

Contact Name _____
Vendor Phone 800 267 1575
Vendor Fax 613 745 4291

Buyer	Chantal Lavoie
Requisition Nbr	
Tax Resale Nbr	10127-2607
Terms	Net 30
Currency	CAD
FOB	

Ship To : DART AEROSPACE LTD 1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Line Nbr	Reference Revision ID	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
	MLEXS.060-9034-08	.060" 9034 Lexan Sheet	9/02/10 Yes	16.00 sf		\$0.0000	\$0.00

Special Inst: MATERIAL: LEXAN 9034 SMOOTH
CLEAR

PO Total: \$0.00

No substitution or deviation without consent.
Certificate of Conformity or Material Certification required when applicable

Change Nbr: 1

Change Date: 9/02/10

SABIC

Polymershapes

سابك
sabic

ORDER CONFIRMATION

Sold To

DART AEROSPACE LTD

1270 ABERDEEN STREET
HAWKESBURY, ON K6A 1K7
Canada

Ship To

DART AEROSPACE LTD

1270 ABERDEEN STREET
HAWKESBURY ON K6A 1K7
Canada

ORDER
Date
GST Registration #
Taken By:

092882
01.09.10
856372750RT0001
caldwellj

Customer DARAER	Ship Via PUROLATOR	TAX LIC 1 CHARGE GST	TAX LIC 2 6112-5207	A/R Terms NET 30 DAYS	A/C		Page 1
					F. O. B.		
P. O. # CHANTAL		Expiry Date 31.08.12	Freight Terms COLLECT	Sales Representative 93	Sched Ship 01.09.10	Dept.	
Product	Quantity	SKU	Description	Price	Per	Extension	
11203205	1	EA	9034-112 LEXAN .060 X 48 X 48	.00	EA	0.00	
0000005	1	EA	THANK YOU FOR SELECTING SABIC POLYMERSHAPES ATTN: CHANTAL LAVOIE	.00	EA	0.00	
* ORDER CONFIRMATION * Total						0.00	
						=====	

This is to verify receipt of the above-referenced order. Upon acceptance of the order, SABIC Polymershapes will fill the order on its standard terms and conditions of sale unless, prior to shipment of all or part of this order, you provide written objections to such standard terms and conditions of sale or unless other terms have been agreed to in writing signed by SABIC Polymershapes.

31.12.20

SABIC Polymershapes 1250 Old Innes Rd., Unit 519 Ottawa, Ontario K1B 5L3 PST 85637 2750 TR0001
Phn : (613)745-7043 Fax : (613)745-4291

Purchase Order Receipt Listing

Page 1 of 1

September 3, 2010 9:58:42 AM

All amounts are calculated in domestic currency.

All Vendors PO ID po12498 All Receipt Dates All Line Item Types

All Item ID/GL/WOs All Rec. Employees All Currencies

Grouped by Vendor ID

Receiving Report

Date: 10/5/1 Batch No: M115569
 Supplier: SABRE Dart P/O: Sample 12498
 Packing Slip: Yes No
 Invoice: Yes No
 Receipt: Cash Cr
 Release Note Attached: Yes No N/A
 Waybill Attached: Yes No
 Shipment Complete: Yes No
 QC6 Inspection _____ N/A
 Work Order _____ N/A
 _____ N/A

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments

Initials of receiver (if shipment OK) Level 12 JK

Production/Admin:

Date: 10/9/03

Received/Costing:

Initial: EL

Location: Class A

Work Order ID	62295	Required Qty	3.0000	Status Code	Complete
Item ID	D4106-7	Accepted Qty	4.0000	Scrap Qty	0.0000
Item Name	Template	Sales Order ID			
Current Acct Value	\$1.579				

Start Date	9/24/10	Required Date	10/04/10	Completed Date	9/29/10 9:02:09 AM
------------	---------	---------------	----------	----------------	-----------------------

Standard	** Actual **	** Acct. Value **	** Variance **	** Variance % **
<u>Direct Costs</u>	<u>Total</u>	<u>Each</u>	<u>Each</u>	<u>Each</u>
Material	\$0.000	\$0.000	\$0.000	\$0.000 0.00%
Labor	\$2.064	\$0.516	\$0.000	-\$0.516 -100.00%
Outplant	\$0.000	\$0.000	\$0.000	\$0.000 0.00%
Variable Burden	\$0.000	\$0.000	\$0.000	\$0.000 0.00%
Fixed Burden	\$4.251	\$1.063	\$0.000	-\$1.063 -100.00%
Material Burden	\$0.000	\$0.000	\$0.000	\$0.000 0.00%
** Total **	\$6.315	\$1.579	\$0.000	-\$1.579

Item ID/ Item Name	Required Qty	Issue Code	Issue Date	Issued Qty	Cost Amount
MLEXS.060-9034-08 <u>.060" 9034 Lexan Sheet</u>	0.6660		9/27/10	1.1000	\$0.000
				Total Matl Amts:	\$0.000

Work Center Waterjet

Employee ID	Rout Seq ID	Labor Date	Setup Hours	Actual Setup Hours	Labor Hours	Actual Labor Hours	Nbr of WOs	Setup Amount	Labor Amount	Fix Burd Amount	Var Burd Amount	Total Amounts
-------------	-------------	---------------	----------------	--------------------------	----------------	--------------------------	------------------	-----------------	-----------------	--------------------	--------------------	------------------

BLEC01

9/27/10												
100		0.00	0.00	0.11	0.11					251	\$0.000	\$6.31
	Total:	0.00	0.00	0.11						-51	\$0.000	\$6.31

Location/Lot Activity

September 29, 2010 10:41:15 AM

Page 1 of 1

Criteria : Item ID: MLEXS.060-9034-08 All Locations All Lots All Transaction Types All Dates Report on Locations & Lots

Transaction Type	Item ID/ Item Name	Warehouse	Reason	Employee ID	Loc Trans Date	LocQtyPrior/ Location Qty	Lot Number	LotQtyPrior/ Lot Qty	Shelf Life Date	Extended Cost	
		Location ID		Location Code				Lot Code			
Issue	MLEXS.060-9034-08 / .060" 9034 Lexan Sheet	Main Warehouse	62304	DCUSER		16.0000		16.0000			
		MAT			9/27/10	-1.1000	115569	-1.1000		\$0.00	
		Main Warehouse	62295	DCUSER		14.9000		14.9000			
		MAT			9/27/10	-1.1000	115569	-1.1000		\$0.00	
										-2.2000	
PO Receipt	MLEXS.060-9034-08 / .060" 9034 Lexan Sheet	Main Warehouse	PO12498	LAV001		0.0000		0.0000			
		MAT			9/03/10	16.0000	115569	16.0000		\$0.00	
										16.0000	
										\$0.00	

MATERIAL CERTIFICATION
RECD UPON DELIVERY
C&L 10/9/29

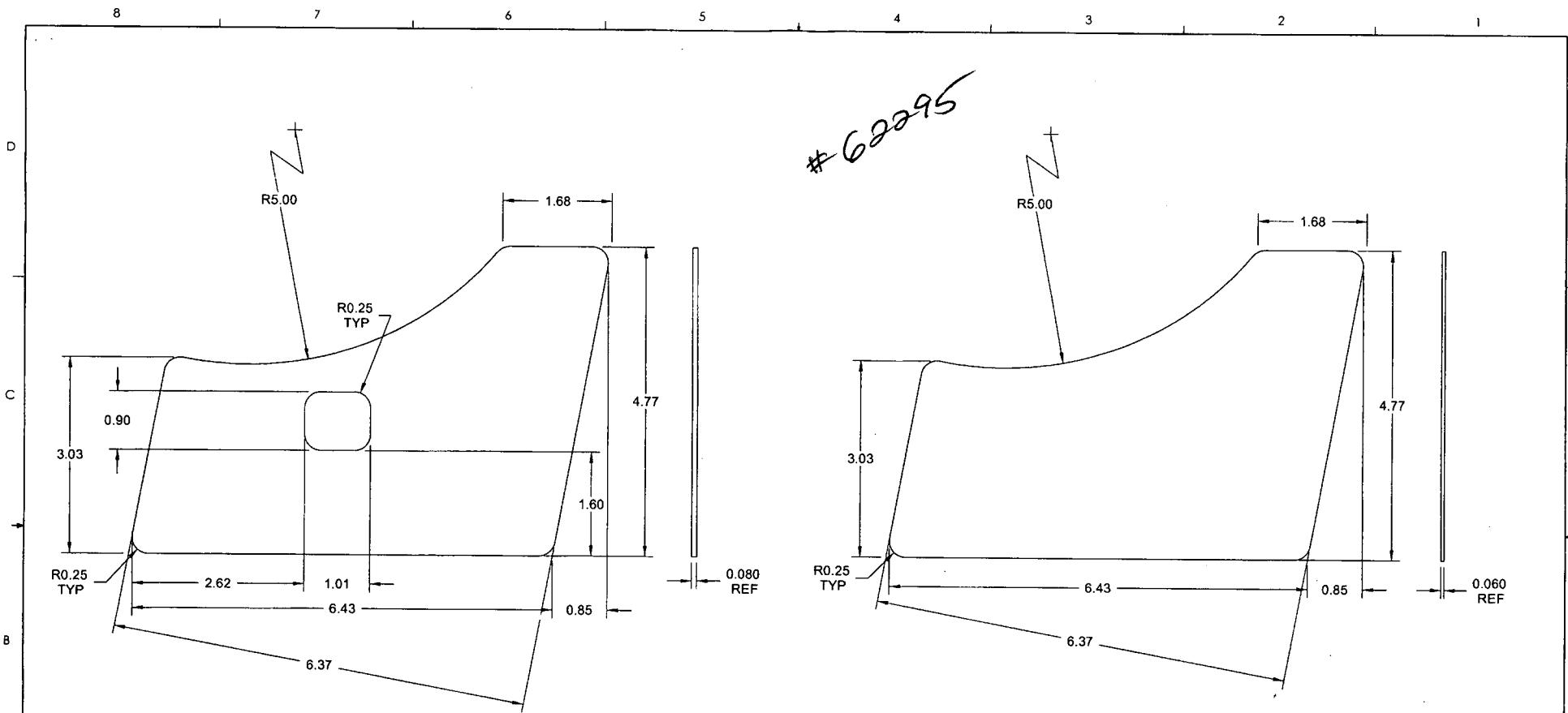
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



NOTES:

- 1) MATERIAL -5: KYDEX 6185 SHEET, 0.080 THK
REF DART MKYD6185S.080-P3-52068 OR MKYD6185S.080-P3-62015
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENT P/N D4106-X PER QSI 044 6.1
- 7) WEIGHT -5: 0.08 lbs
-7: N/A

DESIGN	JPH	DART AEROSPACE LTD	
DRAWN	JPH	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. A
MFG. APPR.	<i>[Signature]</i>	D4106	SHEET 5 OF 5
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	DOUBLERS	NTS
DATE	10.07.15	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR CONVEYED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

RELEASED
2010-09-23
[Signature]

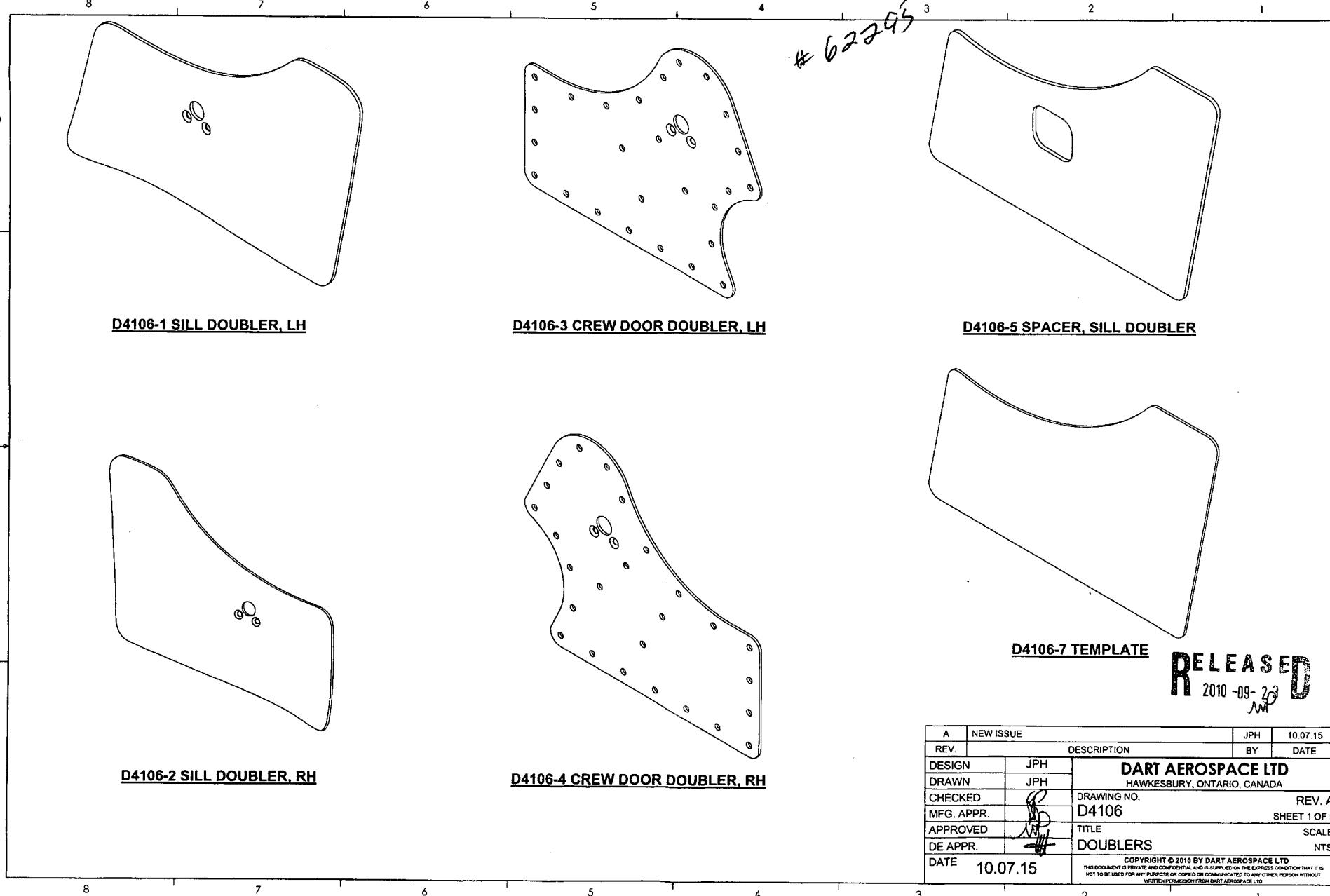
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



A	NEW ISSUE		JPH	10.07.15
REV.	DESCRIPTION		BY	DATE
DESIGN	JPH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWN	JPH			
CHECKED				REV. A
MFG. APPR.			DRAWING NO.	SHEET 1 OF 5
APPROVED			D4106	
DE APPR.		TITLE	SCALE	NTS
DATE	10.07.15	DOUBLERS		

COPYRIGHT © 2010 BY DART AEROSPACE LTD
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS
NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT
WRITTEN PERMISSION FROM DART AEROSPACE LTD

DART AEROSPACE LTD	Work Order:	62795
Description: TEM plate	Part Number:	D4106-7
Inspection Dwg: D4106-7 Rev: 1A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

Measured by:	B	Audited by:	S	Prototype Approval:	N/A
Date:	10-9-07	Date:	10/09/08	Date:	N/A

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Friday, September 24, 2010 3:00:00 PM

Page 1

Work Order ID: 62295



Parent Item: D4106-7



Parent Item Name: Template

Start Date: 9/24/2010

Required Date: 10/4/2010

Start Qty: 3.00

Required Qty: 3.00

Comments: IPP Rev:A 10.09.24 new issue DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MLEXS.060-9034-08 .060" 9034 Lexan Sheet		Purchased		No		100	sf	16.0000	0.2109	0.666			810-4-27

Location	Loc Qty	Loc Code
MAT	16	
115569	16	115569

(4)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No , DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 62295

Friday, September 24, 2010 3:00:01 PM



Page 2

Item ID: D4106-7

Revision ID:

Item Name: Template

Start Date: 9/24/2010 Start Qty: 3.00

Accept



Setup Start



Required Date: 10/4/2010 Req'd Qty: 3.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center ID

120



QC

Quality Control

Operation
Description

QC8- Inspect parts - second check

Set Up/
Run Hours

0.00

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp5/09/28
to Rev A

(4)

130



Packaging

Packaging

Identify as per dwg & Stock Location

129

0.00

Memo

PPP 62778 1X

10/9/28 sf (4)

140



QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

10/09/30 sf
MF
10-9-29

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 62295

Friday, September 24, 2010 3:00:01 PM



Page 1

Item ID: D4106-7

Accept



Setup Start



Revision ID:

Item Name: Template

Stop



Start Date: 9/24/2010 Start Qty: 3.00



Cust Item ID:

Required Date: 10/4/2010 Req'd Qty: 3.00



Customer:

Reference:

Approvals: Process Plan: MF

Date: 10-9-24

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
----------	--------------

D4106	A
-------	---

100



Waterjet

FLOW CNC Waterjet

LEFKAN .060

Memo

1-Cut as per Dwg

Dwg Rev: A

Prog Rev: A

2-Deburr if necessary

SB 10/09/28

10-9-27

(4)

110



QC2- Inspect parts off machine FAI/FAIB

0.00

QC

Memo

0.00

10-9-27

Quality Control